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(54) Title: A DEMODULATION METHOD USING SOFT DECISION FOR QUADRATURE AMPLITUDE MODULATION AND APPARATUS THEREOF

in-phase component (a)
quadrature phase component (b)

Second bit determining means

Decoder

OUTPUT

and the probability vector decision

First bit determining means

Decoder

OUTPUT

Outpu

(57) Abstract: The present invention relates to a demodulation method using soft decision for QAM(Quadrature Amplitude Modulation). In a soft decision method for demodulation of a received signal of square QAM comprised of the same phase signal component and a orthogonal phase signal component, the demodulation method using soft decision has a characteristic wherein the processing speed is improved, and the manufacturing expense is reduced by gaining a condition probability vector value, which is each soft decision value, corresponding to a beat position of hard decision using a function which includes a condition judgement operation from a orthogonal phase component value of a received signal and the same phase component value.

